

CURRICULUM

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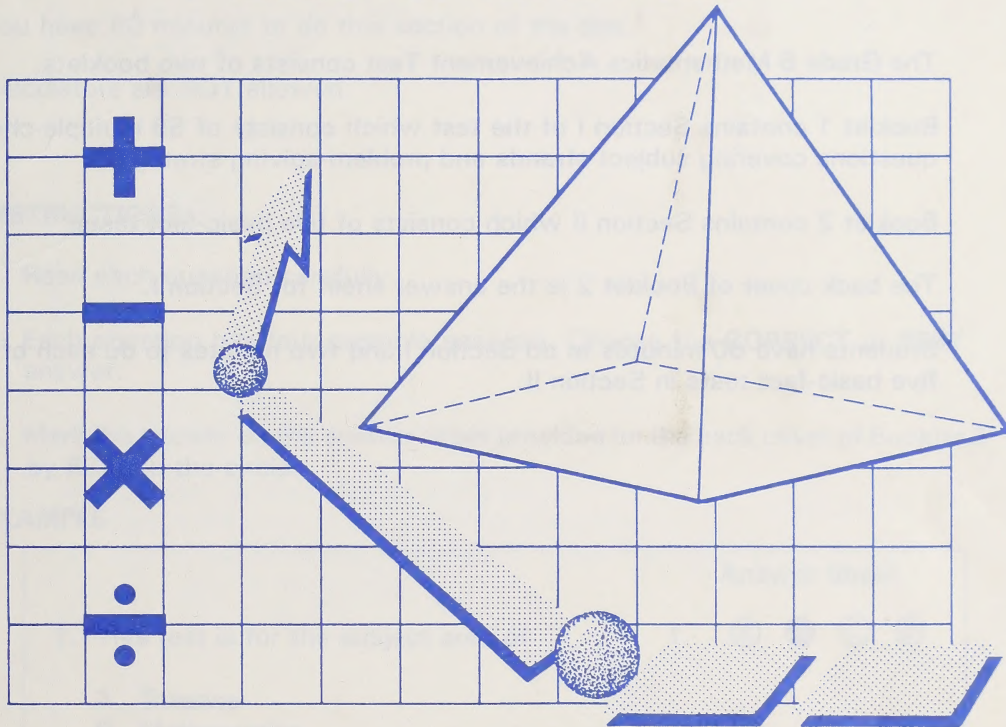
CURR HIST



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GRADE 6 MATHEMATICS

Achievement Test



June 1987

Booklet 1

Student Evaluation

Alberta
EDUCATION

GENERAL INFORMATION:

The Grade 6 Mathematics Achievement Test consists of two booklets.

Booklet 1 contains Section I of the test which consists of 55 multiple-choice questions covering subject strands and problem-solving strategies.

Booklet 2 contains Section II which consists of five basic-fact tests.

The back cover of Booklet 2 is the answer sheet for Section I.

Students have 60 minutes to do Section I and two minutes to do each of the five basic-fact tests in Section II.

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PURPOSES OTHER THAN THOSE AUTHORIZED AND SCHEDULED BY
ALBERTA EDUCATION IS STRICTLY PROHIBITED.**

DIRECTIONS FOR SECTION I:

This booklet contains Section I of the Grade 6 Mathematics Achievement Test. It consists of 55 multiple-choice questions covering numeration, operations and properties, measurement, geometry, graphing, and problem-solving strategies.

You have 60 minutes to do this section of the test.

Calculators are **NOT** allowed.

INSTRUCTIONS:

1. Read each question carefully.
2. Each question has four possible answers. Choose the **CORRECT** or **BEST** answer.
3. Mark the answer on the answer sheet provided on the back cover of Booklet 2 by filling in the circle.

EXAMPLE

Answer Sheet	
1. This test is for the subject area of	1. <input type="radio"/> A <input checked="" type="radio"/> B <input type="radio"/> C <input type="radio"/> D
A. Science	
B. Mathematics	
C. Physical Education	
D. Language Arts	

4. Use **ONLY** an **HB** pencil to mark your answer.
5. Mark only one answer for each question. If you change an answer, please erase your first mark completely.
6. Be sure that the number on the answer sheet matches the number of the question you are doing.
7. Do not turn the page until the teacher tells you to do so.

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SECTION I

- In the number 534 896 201, the digit 3 is in the
 - ten thousands place
 - hundred thousands place
 - ten millions place
 - hundred millions place
- In the number 324.68, the digit in the tens place is
 - 8
 - 6
 - 4
 - 2
- Joan's locker number has three digits.
The digit in the ones place is greater than three.
The digit in the hundreds place is two times the ones place.
There is a zero in the number.
Joan's locker number is
 - 408
 - 480
 - 804
 - 840
- 60.479 written in expanded notation is
 - $(6 \times 1) + (0 \times 1) + (4 \times 0.1) + (7 \times 0.01) + (9 \times 0.001)$
 - $(6 \times 10) + (0 \times 1) + (4 \times 0.01) + (7 \times 0.1) + (9 \times 0.001)$
 - $(6 \times 10) + (0 \times 1) + (4 \times 0.1) + (7 \times 0.01) + (9 \times 0.001)$
 - $(60 \times 10) + (0 \times 1) + (4 \times 0.1) + (7 \times 0.01) + (9 \times 0.001)$

5. 4.362 rounded to the nearest tenth is

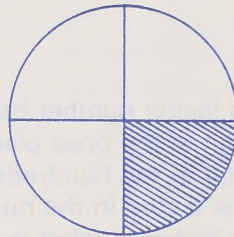
- A. 4.3
- B. 4.36
- C. 4.4
- D. 4.400

6. If a car travels 200 km in 3 h, how many hours will it take to travel 800 km?

- A. 9 h
- B. 11 h
- C. 12 h
- D. 24 h

7. The shaded part of the circle at the right expressed in decimal form is

- A. 0.25
- B. 0.4
- C. 0.75
- D. 1.4



8. 0.06 written as a per cent is

- A. 0.06%
- B. 0.6%
- C. 6%
- D. 60%

9. Carol correctly answered 6 out of 8 questions. What was her score in per cent?

- A. 48%
- B. 68%
- C. 70%
- D. 75%

10. Which group of integers is arranged in order from LARGEST to SMALLEST?

- A. 0, -2, -6, 1, 2
- B. 2, 1, -6, -2, 0
- C. 2, 1, -2, -6, 0
- D. 2, 1, 0, -2, -6

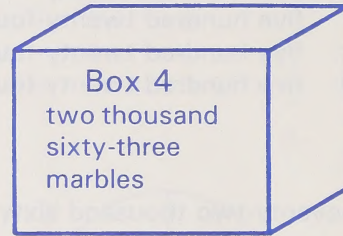
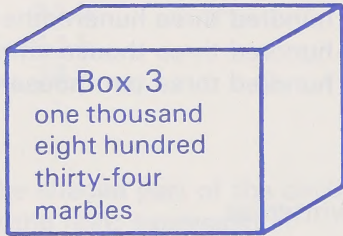
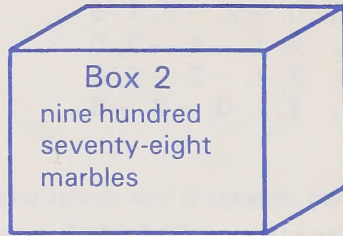
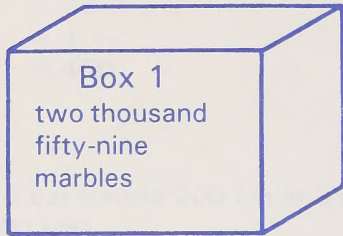
11. The numeral 524.0103 is read as

- A. five hundred twenty-four and one hundred three
- B. five hundred twenty-four and one hundred three hundredths
- C. five hundred twenty-four and one hundred three thousandths
- D. five hundred twenty-four and one hundred three ten thousandths

12. Seventy-two thousand sixty-three is written as

- A. 72 063
- B. 72 630
- C. 720 063
- D. 7 263 000

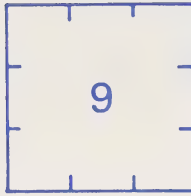
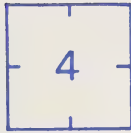
13. A store sells these boxes of marbles.



Ted wants to buy the box with the LARGEST number of marbles. Which box should he buy?

- A. Box 1
- B. Box 2
- C. Box 3
- D. Box 4

14.



What number goes inside the last box?

- A. 10
- B. 12
- C. 14
- D. 16

15. $0.03 + 0.005 + 0.2$ equals

- A. 0.352
- B. 0.235
- C. 0.0352
- D. 0.0235

16. Find the difference.

$$\begin{array}{r} 908 \\ - 769 \\ \hline \end{array}$$

- A. 139
- B. 149
- C. 261
- D. 1677

17. Out of a total of 342 forest fires, 205 were caused by lightning, 22 by the logging industry, and the rest by campers and hikers. How many fires were caused by campers and hikers?

- A. 320
- B. 227
- C. 137
- D. 115

18. Linda is 3 years older than Tara.
Tara is 5 years younger than Jill.
Jill is 14 years old.
To find Linda's age, Joe used the equation $14 + 5 - 3 = n$.
His answer was 16.
Was he correct?

- A. Yes.
- B. No, a correct equation is $14 + 5 + 3 = n$.
- C. No, a correct equation is $14 - 5 + 3 = n$.
- D. No, a correct equation is $14 - 5 - 3 = n$.

19. 45×709 is equal to

- A. 3 255
- B. 3 555
- C. 31 865
- D. 31 905

20. Find the product.

$$\begin{array}{r} 3.23 \\ \times 0.9 \\ \hline \end{array}$$

- A. 2.787
- B. 2.907
- C. 27.87
- D. 29.07

21. Bonnie sold 21 boxes of chocolate bars. Each box contained 48 chocolate bars. The best estimate of the total number of chocolate bars she sold is

- A. 69
- B. 500
- C. 800
- D. 1000

22. If the SMALLEST 3-digit whole number is multiplied by itself, the product will contain

- A. 5 digits
- B. 6 digits
- C. 9 digits
- D. 10 digits

23. $343 \overline{)8111.95}$ equals

- A. 23.7
- B. 32.53
- C. 23.65
- D. 24.65

24. Mark did a division problem as shown.

$$\begin{array}{r} 172 \\ 43 \overline{)7213} \quad \dots\dots\dots \text{line 1} \\ \underline{43} \\ 291 \quad \dots\dots\dots \text{line 2} \\ \underline{281} \\ 103 \quad \dots\dots\dots \text{line 3} \\ \underline{86} \quad \dots\dots\dots \text{line 4} \\ 17 \end{array}$$

In which line did he make the FIRST error?

- A. Line 1
- B. Line 2
- C. Line 3
- D. Line 4

25. There are 80 men on a ship. If they must abandon the ship, what is the SMALLEST number of 7-man lifeboats needed to save everyone?
- A. 17
 - B. 12
 - C. 11
 - D. 10

26. $0.6 \overline{)735.6}$ equals

- A. 105.9
- B. 122.6
- C. 1209
- D. 1226

27. David solved a division problem as shown at the right. If you are to check his work by another method, then the method you should use is

$$\begin{array}{r}
 83 \\
 42 \overline{)3509} \\
 \underline{336} \\
 149 \\
 \underline{126} \\
 23
 \end{array}$$

- A. add 83 to 23, and then multiply the sum by 42
- B. add 42 to 23, and then multiply the sum by 83
- C. multiply 42 by 23, and then add 83 to the product
- D. multiply 42 by 83, and then add 23 to the product

28. If 86 is divided by 86, then multiplied by 124, the answer is

- A. 0
- B. 1
- C. 124
- D. 210

29. 90% of 20 is

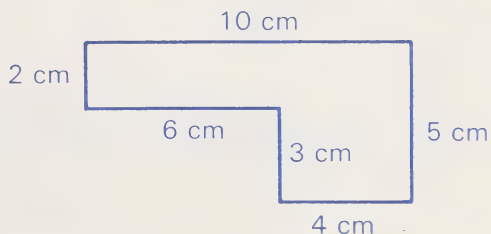
- A. 9
- B. 17
- C. 18
- D. 19

30. Tim saved \$1.25 during the first week, \$2.50 during the second week, \$1.50 during the third week, and then spent ALL this money on 3 model cars. The average cost for a car was

- A. \$5.25
- B. \$1.75
- C. \$1.50
- D. \$0.75

31. The PERIMETER of the figure at the right is

- A. 32 cm
- B. 30 cm
- C. 25 cm
- D. 24 cm

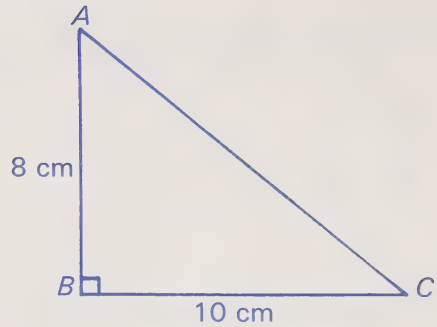


32. A swimming pool is divided into 6 lanes. Each lane is 2 m wide and 50 m long. What is the PERIMETER of the pool?

- A. 124 m
- B. 312 m
- C. 374 m
- D. 624 m

33. The AREA of triangle ABC at the right is

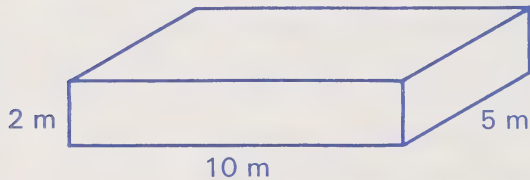
- A. 18 cm^2
- B. 20 cm^2
- C. 40 cm^2
- D. 80 cm^2



34. The AREA of Joan's rectangular garden is 40 m^2 . If the width of the garden is 5 m, what is its length?

- A. 4 m
- B. 8 m
- C. 35 m
- D. 200 m

35. An aquarium has inside dimensions as shown below.



The SMALLEST number of aquariums you would need to store 200 m^3 of water is

- A. 1 aquarium
- B. 2 aquariums
- C. 3 aquariums
- D. 4 aquariums

36. Tony has a box as shown below.



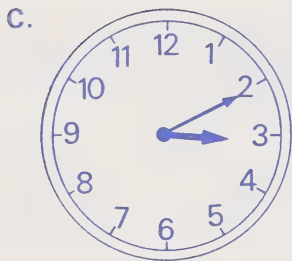
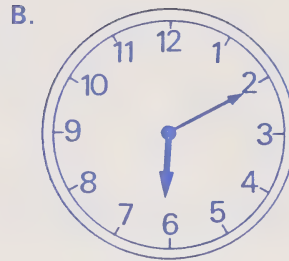
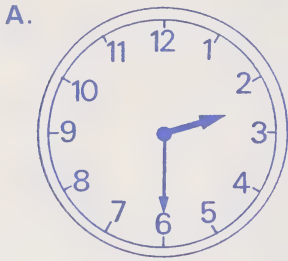
The width of the box is the same as the length, and the height is twice the length. Tony calculated the volume of the box as

$$5 \times 5 \times 2 = 50 \text{ cm}^3$$

Is he correct?

- A. Yes.
 - B. No, a correct calculation is $5 \times 2 \times 2 = 20 \text{ cm}^3$.
 - C. No, a correct calculation is $5 \times 5 \times 10 = 250 \text{ cm}^3$.
 - D. No, a correct calculation is $5 \times 5 \times 5 \times 5 = 625 \text{ cm}^3$.
37. Using the scale 1 cm:20 km, if the distance between two cities on the map measures 4 cm, the actual distance is
- A. 5 km
 - B. 20 km
 - C. 24 km
 - D. 80 km

38. Which clock shows 14:30?



39. If you want to measure the length of a mathematics textbook, which unit would you use?

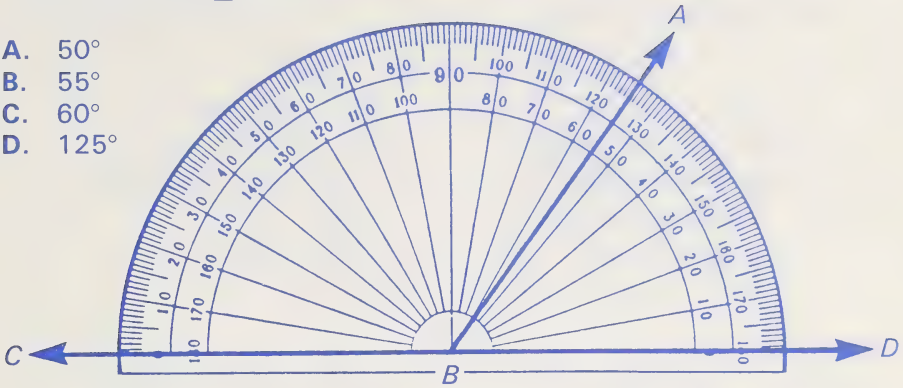
- A. Metre
- B. Centimetre
- C. Millimetre
- D. Decametre

40. 1000 g equals

- A. 1 kg
- B. 10 kg
- C. 100 kg
- D. 0.1 kg

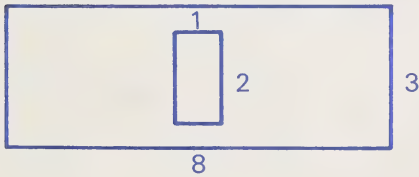
41. The measure of $\angle ABD$ is

- A. 50°
- B. 55°
- C. 60°
- D. 125°

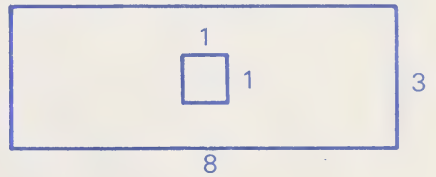


42. One wall of a den is wallpapered except the window. The wall is 8 m long and 3 m high and the window is 2 m long and 1 m high. Which of the following is the BEST diagram of the wall?

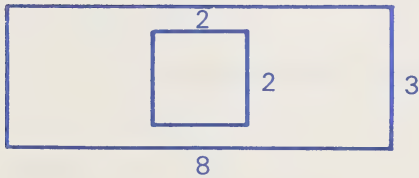
A.



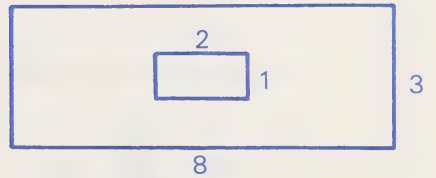
B.



C.

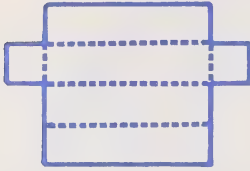


D.

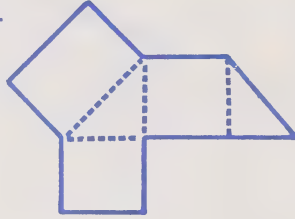


43. Which one of the following shows the pattern of a RECTANGULAR PRISM?

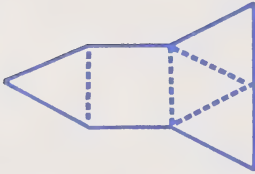
A.



B.



C.



D.



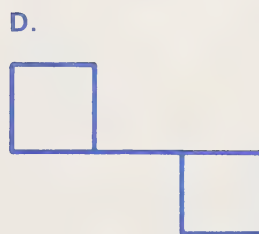
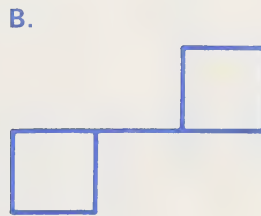
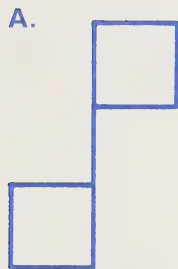
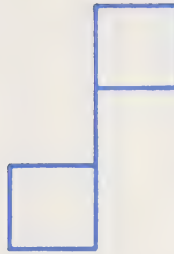
44. The diagram below shows the first step in drawing a triangular prism.



To complete the prism, you would draw line segments

- A. \overline{RW} , \overline{WX} , \overline{XY}
- B. \overline{RW} , \overline{WX} , \overline{SZ}
- C. \overline{RW} , \overline{WZ} , \overline{YZ}
- D. \overline{RW} , \overline{WX} , \overline{YZ}

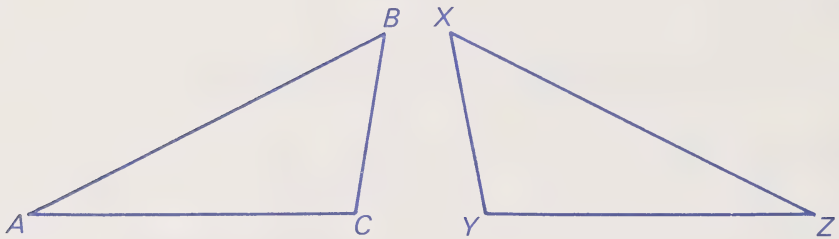
45. Which figure is a slide image of the figure at the right?



46. Which drawing shows this footprint going in the opposite direction?



47.



If the two shapes are congruent, then






- A. point B corresponds to point Z
- B. \overline{CB} corresponds to \overline{YX}
- C. \overline{AC} corresponds to \overline{XY}
- D. $\angle ACB$ corresponds to $\angle XZY$


48. The figure at the right represents


- A. parallel lines
- B. perpendicular lines
- C. intersecting lines
- D. right angles



49. The graph below is NOT complete.

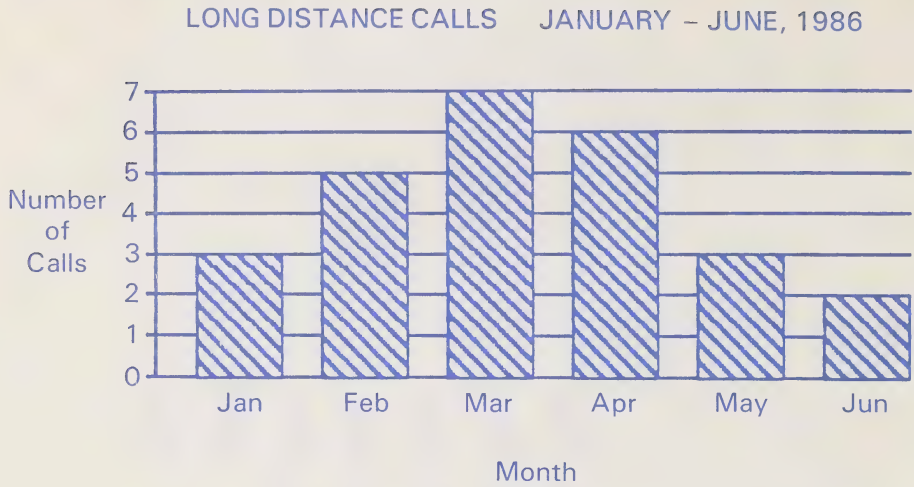
Pine	
Cedar	
Hemlock	
Spruce	
Tamarack	
Fir	?

 = 100 trees

If there are 450 fir trees, which group of  would correctly represent this number?

- A. 
- B. 
- C. 
- D. 

50. Study the graph below.

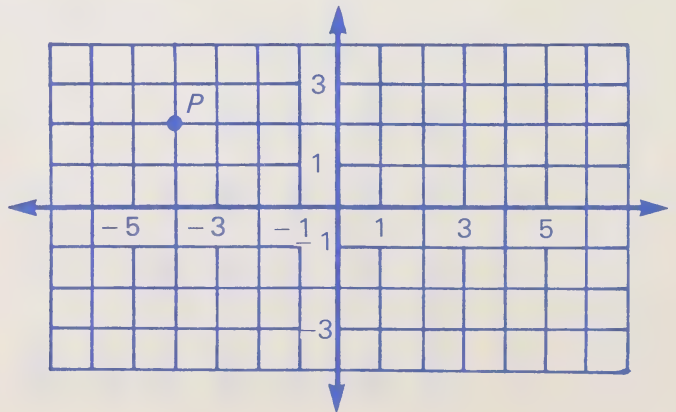


From the graph above, the number of long distance calls in May and June combined was equal to the number of calls in

- A. January
- B. February
- C. March
- D. April

51. On the graph at the right, point P is located at

- A. $(-4, 2)$
- B. $(-4, -2)$
- C. $(-2, 4)$
- D. $(2, -4)$



52. A geranium grew at the rate of 3 cm each week. If you complete the chart at the right to show the height of the geranium at the end of the second, third, and fourth weeks, the complete chart would be

Geranium Growth

Week	1			
Height (cm)	3			

A.

Week	1	6	9	12
Height (cm)	3	6	9	12

B.

Week	1	2	3	4
Height (cm)	3	4	5	6

C.

Week	1	2	3	4
Height (cm)	3	6	9	12

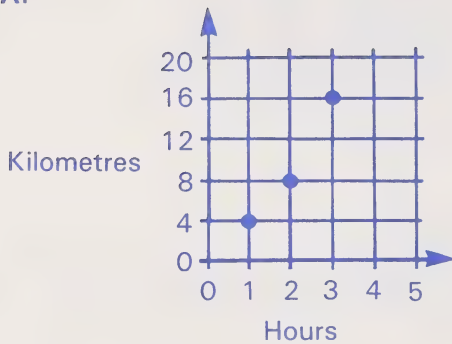
D.

Week	1	2	3	4
Height (cm)	3	6	27	81

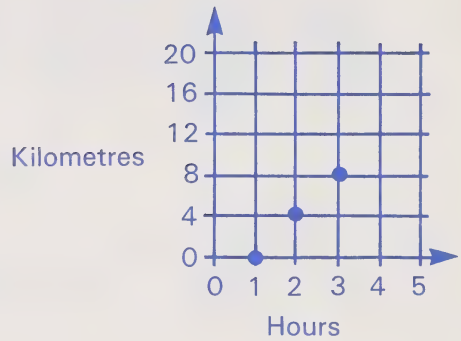
53. On a hiking trip Jeff walks at a rate of 4 km/h. If you complete the table and graph the ordered pairs, the graph should look like

Hours (h)	1	2	3
Kilometres (km)			

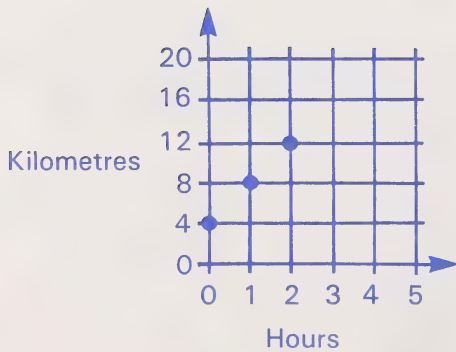
A.



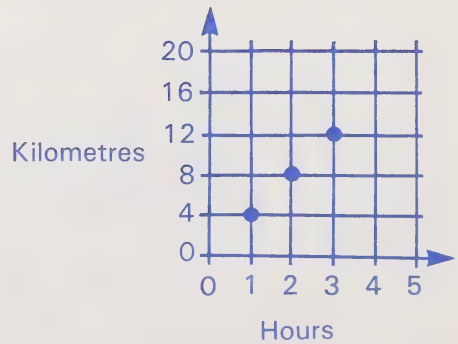
B.



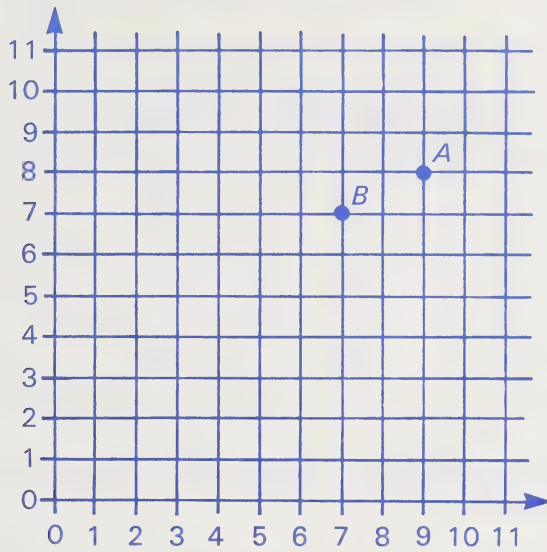
C.



D.



54. The grid below shows that KANGAROO-MAN travels from A to B in one jump.



If he makes 3 more jumps in the same direction, he will be at

- A. (1, 4)
- B. (4, 1)
- C. (1, 1)
- D. (0, 4)

55. Gail's teacher showed her class the chart below.

CARS SEEN BY THREE CHILDREN

	Monday	Tuesday	Total
Sue	24	48	72
John	39	37	76
Shelly	25	35	60

The teacher asked Gail a question. Gail found the answer by using this number sentence:

$$76 - 72 = 4$$

What question was Gail asked?

- A. How many cars did Sue see?
- B. How many cars did John see?
- C. How many more cars did John see than Sue?
- D. How many more cars did John see than Shelly?

END OF SECTION I

YOU MAY GO BACK AND CHECK YOUR ANSWERS
TO SECTION I, QUESTIONS 1 TO 55



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MATHEMATICS --

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DATE DUE SLIP

The teacher asked Gal a question. Gal found the answer by using the number sentence.

$$78 - 72 = 6$$

What question was Gal asked?

- A. How many cars did Sue see?
- B. How many cars did John see?
- C. How many more cars did John see than Sue?
- D. How many more cars did John see than Stacy?

END OF SECTION

YOU MAY GO BACK AND CHECK YOUR ANSWERS
TO SECTION 1, QUESTIONS 1 TO 45





